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EXAMINER				
LEE, JINHEE J				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/595,183

**Applicant(s)**

ROSSLER ET AL.

**Examiner**

Jinhee J. Lee

**Art Unit**

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 17-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 17-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date 0706
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

### **DETAILED ACTION**

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 18-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 recites the limitation "the at least two-part interaction element" in line 1-

2. There is insufficient antecedent basis for this limitation in the claim.

#### ***Claim Rejections - 35 USC § 101***

3. Claims 1-30 meet the requirements under 35 U.S.C. 101 because the claimed invention is directed to being used with position detection sensor system, which is a physical device.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 17, 18, 22-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Abe et al. (20020012013).

Re claim 1, Abe et al. discloses a graphical user interface characterized by an interaction element (104, 105 for example) which is functionally and visually formed from at least two subelements (104, 105 for example) which respectively provide said function selection, the at least two subelements being designed such that they can be moved in a virtual three-dimensional manner relative to one another by means of a physical three-dimensional movement of the interaction unit, and said function being selected by means of the at least two subelements being moved in a virtual three-dimensional manner relative to one another (see figure 1 for example).

Re claim 2, Abe et al. discloses a graphical user interface, characterized in that at least one of the subelements (104 for example) is at least occasionally displayed at an essentially fixed position (when held steady for example) in the virtual scene, said function being selected by means of a virtual three-dimensional movement of the respective other subelement relative to the subelement which is at least occasionally displayed at the fixed position (see figure 1 for example).

Re claim 17, Abe et al. discloses a graphical user interface, characterized in that the function selection is triggered, during the movement of the at least two subelements relative to one another, if the at least two subelements at least partially touch or overlap (see figure 1 and 13 for example).

Re claim 18 Abe et al. discloses a graphical user interface, characterized in that the at least two-part interaction element is implemented in the form of a menu system, a function selection system or the like (see figure 13 and 15 for example).

Re claim 22, Abe et al. discloses a graphical user interface, characterized in that provision is made of a latching function (latching of color for example) which depends on the angle of rotation of the interaction unit and/or of the respective subelement.

Re claim 23, Abe et al. discloses a graphical user interface, characterized in that an interaction which is to be effected on the basis of a physical rotational movement and/or physical translational movement of the interaction unit is triggered a corresponding interaction only when an empirically prescribable threshold value is exceeded (i.e. when touching for example).

Re claim 24, Abe et al. discloses a graphical user interface, characterized in that a further functional and/or visual relative displacement between the subelements is prevented as of a prescribable degree of overlap or touching between the at least two subelements (see figure 1 for example).

Re claim 25, Abe et al. discloses a graphical user interface, characterized in that the relative displacement between the at least two subelements is effected in a guided manner (see figure 1 for example).

Re claim 26, Abe et al. discloses a graphical user interface, characterized in that at least one of the subelements is visually displayed in animated form in the scene in the event of rotation and/or translation and/or touching (see figure 1 for example).

Re claim 27, Abe et al. discloses a graphical user interface, characterized in that the interaction unit has at least one control element which is used to at least assist said functional sequences of the user interface (see figure 1 and 15 for example).

Re claim 28, Abe et al. discloses a graphical user interface, characterized in that said functional sequences of the user interface are assisted using voice input and/or the detection of gestures or facial expressions of the user (see figure 1 for example).

Re claim 29, Abe et al. discloses a graphical user interface, characterized in that said touching or overlapping function comprises at least one logic operation (see figure 1 and abstract for example).

Re claim 30, Abe et al. discloses a virtual reality (VR) graphics system having a graphical user interface as claimed in claim 1 (see figure 1 for example) .

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al.

Re claim 19, Abe et al. substantially discloses a user interface set forth in claim 18 above with the interaction element is formed by a spherical menu system (see paragraphs 0124 and 0125 for example). Abe et al. does not explicitly disclose a spherical menu system which comprises three visual subelements and comprises an inner sphere which is formed in one part, a spherical shell which is formed from at least two spherical shell segments and is arranged on the visual surface of the inner sphere and a ring which is arranged in the outer region of the sphere or spherical shell and comprises at least two ring segments, the inner sphere providing to represent an item of state information relating to the instantaneous state of the spherical menu system. However, it would have been obvious to modify the device of Abe et al. with different types of configurations since Applicants have presented no explanation that this particular configuration of "a spherical menu system which comprises three visual subelements and comprises an inner sphere which is formed in one part, a spherical shell which is formed from at least two spherical shell segments and is arranged on the visual surface of the inner sphere and a ring which is arranged in the outer region of the sphere or spherical shell and comprises at least two ring segments, the inner sphere providing to represent an item of state information relating to the instantaneous state of the spherical menu system" is significant or is anything more than one of numerous

configurations. A person having ordinary skill in the art would have found it obvious to modify the device of Abe et al. to the claimed configuration of a spherical menu system which comprises three visual subelements and comprises an inner sphere which is formed in one part, a spherical shell which is formed from at least two spherical shell segments and is arranged on the visual surface of the inner sphere and a ring which is arranged in the outer region of the sphere or spherical shell and comprises at least two ring segments, the inner sphere providing to represent an item of state information relating to the instantaneous state of the spherical menu system. A change in shape or configuration is generally recognized as being within the level of ordinary skill in the art. *In re Daily*, 149 USPQ 47 (CCPA 1976).

Re claim 20, note that Abe et al. discloses a graphical user interface, characterized in that the state information indicates the menu level which is currently activated in the spherical shell segments in accordance with a menu tree (see in "shape" attribute in figure 15 for example).

Re claim 21, Abe et al. substantially discloses a user interface except spherical shell segments can be correspondingly rotated about the inner sphere, by means of user-guided rotation of the interaction unit, in order to make it possible to activate various spherical shell segments. However, it would have been obvious to modify the device of Abe et al. with different types of configurations since Applicants have presented no explanation that this particular configuration of "spherical shell segments can be correspondingly rotated about the inner sphere, by means of user-guided rotation of the interaction unit, in order to make it possible to activate various spherical



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shell segments" is significant or is anything more than one of numerous configurations. A person having ordinary skill in the art would have found it obvious to modify the device of Abe et al. to the claimed configuration of a spherical shell segments can be correspondingly rotated about the inner sphere, by means of user-guided rotation of the interaction unit, in order to make it possible to activate various spherical shell segments. A change in shape or configuration is generally recognized as being within the level of ordinary skill in the art. *In re Daily*, 149 USPQ 47 (CCPA 1976).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jinhee J. Lee whose telephone number is 571-272-1977. The examiner can normally be reached on M- F at 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 571-272-2100 ext. 74. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jinhee J Lee/  
Primary Examiner, Art Unit 2174

jjl